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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/981,386	10/16/2001	J. Thomas O'Brien	I-2-186.1US	7050

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VOLPE AND KOENIG, P.C.  
DEPT. ICC  
UNITED PLAZA, SUITE 1600  
30 SOUTH 17TH STREET  
PHILADELPHIA, PA 19103

EXAMINER

HARVEY, DIONNE

ART UNIT	PAPER NUMBER
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2643

DATE MAILED: 08/25/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/981,386

Applicant(s)

O'BRIEN, J. THOMAS

Examiner

Dionne N Harvey

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☐ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) 1-16 and 18-20 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 17 and 21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_.

**DETAILED ACTION**

***Election/Restrictions***

1. Restriction to one of the following inventions is required under 35 U.S.C. 121:
  - I. Claims 1-3, drawn to a wireless communication system, classified in class 455, subclass 3.01.
  - II. Claims 10-12, drawn to a sub-base station, classified in class 455, subclass 417.
  - III. Claims 17 and 21, drawn to wireless dual use user equipment (UE), classified in class 455, subclass 552.1.

The inventions are distinct, each from the other because of the following reasons:

2. Inventions I and II and III are related as subcombinations disclosed as usable together in a single combination. The subcombinations are distinct from each other if they are shown to be separately usable. In the instant case, Invention II has separate utility as a sub base station and need not be used in combination with that of Group III; Invention III has separate utility as a user equipment device and need not be used in combination with that of Group III. See MPEP § 806.05(d).

3. Because these inventions are distinct for the reasons given above and have acquired a separate status in the art because of their recognized divergent subject matter, restriction for examination purposes as indicated is proper.

4. This application contains claims directed to the following patentably distinct species of the claimed invention:

- A. Claims 4 and 13 are directed to call signaling.

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- B. Claims 5 and 6 are directed to call conferencing.
- C. Claims 7,14,18,19 and 20 are directed to call routing.
- D. Claims 8,9,15 and 16 are directed to multi-user systems.

Applicant is required under 35 U.S.C. 121 to elect a single disclosed species for prosecution on the merits to which the claims shall be restricted if no generic claim is finally held to be allowable.

Applicant is advised that a reply to this requirement must include an identification of the species that is elected consonant with this requirement, and a listing of all claims readable thereon, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered nonresponsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

Should applicant traverse on the ground that the species are not patentably distinct, applicant should submit evidence or identify such evidence now of record showing the species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C. 103(a) of the other invention.

5. During a telephone conversation with Attorney Jeffrey Glabicki Reg. No. 42584 on Friday, August 20, 2004 a provisional election was made without traverse to prosecute the invention of Group III, claims 17 and 21. Affirmation of this election must be made by the applicant in replying to this Office action. Claims 1-16 and 18-20 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 17 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Bell (US 6,445,921)** in view of **Wenk (US 6,253,088)**.

Regarding claim 17, In figure 2, Bell teaches a wireless dual use user equipment (UE) **110** capable of establishing communication with remote terminal device through a cordless **150** or a mobile base station **130**, thereby reading on "capable of operating in a cordless and cellular environment";

Shown in figure 2, Bell teaches that the UE comprises a cordless section **215**, and cellular section **220**; disclosed in column 2, lines 62-64, Bell teaches that each section is provided with respective antennas **230,235**, and respective

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transmitter/receiver devices, in column 3, lines 1-12, Bell teaches that each transmitter comprises a modulator for modulating transmitted signals, and a demodulator for demodulating received signals, which reads on “the dual user equipment comprising: a modulation and demodulation device for modulating/demodulating data using a plurality of modulation/demodulation schemes,”;

In figures 1 and 2, Bell teaches that the cordless section **215** via its’ antenna **230**, transmitter/receiver and modulator/demodulator units, operates in two-way communication with cordless base station **150**, thereby reading on “the plurality of modulation/demodulation schemes comprise a cordless scheme for communicating with a sub base”;

While the cellular section **220** via its’ antenna **235**, transmitter/receiver and modulator/demodulator units, operates in two-way communication with cellular network **130**, thereby reading on “the plurality of modulation/demodulation schemes comprise ... a cellular scheme for communicating with a base station”;

Also shown in figure 2 and discussed in column 3, lines 63-66, column 4, lines 36-39 and column 4, 56-58, Bell teaches that microprocessor **245** will automatically or by user initiation, switch between cordless operation and cellular operation, which reads on “ a modulation and demodulation controller for switching the modulation/demodulation scheme of the modulation/demodulation device between the cordless scheme and the cellular scheme,”

In column 3, lines 63-67, Bell teaches that the switch between cellular and cordless modes result in handover between the cellular and cordless systems, thereby

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reading on "the modulation and demodulation controller initiating operation in the cellular environment by sending a handoff signal and switching to the cellular scheme; "

Bell does not clearly teach that sub base station **150** in response to the sent handoff signal ceases communication with the cellular base station **130**.

In figure 1, Wenk teaches a cordless sub base station **18** which both communicates with a user equipment **10** and cellular base station **12**. In column 3, lines 8-13, column 5, lines 6-10 and column 9, lines 5-11, Wenk teaches that when the user equipment (UE) **10** is no longer in the predefined vicinity of the cordless sub base station **18**, the cordless sub base station **18** is "de-registered" with the cellular base station **12** such that handover from the cordless sub base station **18** to the cellular base station **12** is initiated, thus reading on "whereby a sub base in response to the sent handoff signal ceasing communications with a cellular base station."

It would have been obvious for one of ordinary skill in the art at the time of the invention to substitute the cordless sub base **18** of Wenk for the cordless sub base **150** of Bell, as the substitution will provide a means of anticipating call drop-off such that connection with the appropriate system is facilitated and the overall incidences of dropped calls is significantly decreased.

Regarding claim 21, in column 3, lines 32-38, Bell teaches that the cordless **215** and cellular **220** sections comprise received signal strength indicators (RSSI) **285,287** which indicate the strength of received signals and wherein the UE **110** can detect whether or not the cellular service, or cordless service, or both services are available,



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thereby reading on "the dual use UE determines it is leaving the cordless environment by measuring a received signal strength of a sub base transmission."

### ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dionne N Harvey whose telephone number is 703-305-1111. The examiner can normally be reached on 9-6:30 M-F and alternating Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Curtis Kuntz can be reached on 703-305-4708. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Dionne Harvey

  
CURTIS KUNTZ  
SUPERVISORY PATENT EXAMINER  
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